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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/711,440	11/13/2000	David Lipson	2	7710

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01/14/2003

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EXAMINER

JUNG, WILLIAM C

ART UNIT

PAPER NUMBER

3737

DATE MAILED: 01/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/711,440

Applicant(s)

LIPSON ET AL.

Examiner

William Jung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on October 7, 2002 have been fully considered but they are not persuasive.

Ragauskas clearly anticipates dynamic coupling of the ultrasound transducer to a skull. Ragauskas disclose of an appropriate alignment of ultrasound transducer to investigate the structures of brain tissue including basal artery pressure, which is associated with blood pressure and stroke condition. Ragauskas's ultrasound system includes adjustable dynamic positioning or coupling of the ultrasound transducer to any desire location of the brain or cranium (col. 5, lines 9 – 36).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being unpatenable by *Ragauskas et al* (US 5,388,583).

Ragauskas disclose of all claimed inventions in claim 1 as described above and in previous action.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-10, 13, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ragauskas et al* in view of *Zuckerman et al* (US 3,948,248).

Ragauskas substantially discloses of all claimed inventions in claims 4-10, 13, and 18. Zuckerman discloses of an ultrasound system where the blood vessels in ocular structure is investigated to diagnose stroke (col. 2, line 30-47; col. 3, line 19-35).

The motivation of Ragauska's invention was to monitor the health status of a patient by investigating the blood flow activity and Zuckerman specifically discloses of diagnosing stroke using similar blood flow analysis through the ocular system. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Ragauskas to the teachings of Zuckerman to achieve the claimed inventions.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ragauskas et al* in view of *Gronningsaeter et al* (US 6,019,724).

Ragauskas substantially discloses of all claimed inventions in claims 2 and 3. Gronningsaeter discloses of an ultrasound guidance procedure combined with other imaging modalities such as MR and CT (col. 7, line 56 – col. 8, line 8). The motivation of Gronningsaeter was to use ultrasound system to treat and guide therapy operation of a brain with other imaging modalities as preoperational guidance, however, the alternative imaging systems can be used as well (col. 2, line 47-59). Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Ragauskas as described above to the teachings of Gronningsaeter to achieve the claimed inventions.

7. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ragauskas et al* and *Zuckerman et al* as applied to claim 4 above, and further in view of *Gilbert* (US 5,690,117).

Ragauskas substantially discloses of all claimed inventions in claims 11 and 14. Gilbert discloses of an ultrasound system where the catheter consisting of ultrasound transducer is inserted in the brain and through a drilled hole (col. 3, line 63 - col. 4, line 8; col. 4, line 15-21). The imaging method includes identifying vessels with partial blockage of blood flow (col. 7, line 53-59).

The motivation of Gilbert was to use ultrasound system to detect partial blockage of blood flow or in other words investigate blood flow, where the catheter is placed in the brain via skull. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Ragauskas and Zuckerman as described above to the teachings of Gilbert to achieve the claimed inventions.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Ragauskas et al* and *Zuckerman et al* as applied to claim 4 above, and further in view of *Silverstein et al* (US 5,247,938).

Ragauskas substantially discloses of all claimed inventions in claim 12. Silverstein discloses of an ultrasound system with the ultrasonic transducer in a catheter is inserted in a patient. The catheter also includes vacuum or suction to attach itself to a vessel or a tissue in the area of interest (col. 4, line 36-46; in reference to figures 2-4). The goal of Silverstein's invention was to combine tissue removal/biopsy with diagnostic ultrasound system such as Ragauskas and Zuckerman. Therefore, it would have been obvious to one having an ordinary

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skill in the art at the time the invention was made to apply the teachings of Ragauskas and Zuckerman as described above to the teachings of Silverstein to achieve the claimed inventions.

9. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ragauskas et al* and *Zuckerman et al* as applied to claim 4 above, and further in view of *Shturman* (US 6,027,460).

Ragauskas substantially discloses of all claimed inventions in claims 15-17. Shturman discloses of an ultrasound catheter where the catheter may be inserted in the patient via nose, ear and throat (col. 1, line 9-17). It is anticipated that the probe may be placed through any openings to the brain, which includes ocular opening. The goal of Shturman's invention was to insert the catheter to the patient at a point of interest such as nose, ear, and ocular opening. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made apply the teachings of Ragauskas and Zuckerman as described above to the teachings of Shturman to achieve the claimed invention.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung whose telephone number is 703-605-4364. The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on 703-305-3256. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-0758 for regular communications and 703-308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

William Jung
Examiner
Art Unit 3737

WJ

January 2, 2003



William Jung
Primary Examiner